CLIMATE ACTION

FAST FACTS

On climate and the ocean

1. The ocean is central to reducing global greenhouse gas emissions and stabilizing the Earth's climate. The ocean generates 50 per cent of the planet's oxygen, absorbs 30 per cent of human-induced carbon dioxide emissions and captures 90 per cent of the excess heat generated by these emissions.

2. Ocean habitats such as mangroves are some of the most carbon-rich ecosystems on the planet, storing on average 1,000 tonnes of carbon per hectare in their biomass and underlying soils.

3. Covering less than 0.1 per cent of the world's ocean, coral reefs support over 25 per cent of marine biodiversity and serve up to a billion people with coastal protection, fisheries, sources of medicine, recreational benefits, and tourism revenues.

4. More than 150 million jobs depend on sound management and sustainable production, export, import and consumption of ocean-based goods and services - in fishing, aquaculture, shipping, coastal tourism, offshore wind energy and marine biotechnology.

5. Offshore wind - a renewable energy source that uses wind turbines located in ocean waters to generate electricity - is expected to increase fifteen-fold by 2040. Wind power alone has the potential to cover more than one third of global power needs, becoming the world's foremost energy source.

6. Approximately 80 per cent of world trade is transported by maritime shipping – which accounts for nearly 3 per cent of global greenhouse gas emissions.

7. Due to climate change, the ocean is warmer, more acidic and less productive today. The ocean has absorbed between 20 to 30 per cent of human-induced carbon dioxide emissions since the 1980s, exacerbating acidification.

8. Marine heatwaves – periods of unusually high ocean temperatures that threaten marine biodiversity and ecosystems and make extreme weather more likely – have doubled in frequency since 1982 and are increasing in intensity. Their frequency will increase with rising greenhouse gas emissions.

9. Sea level has continued to rise over the past decades due to warming temperatures and increasing ice loss in the world's polar regions. Global mean sea level reached a record high in 2024. The rate of global mean sea level rise in the past ten years (2015–2024) is more than twice the rate of sea level rise between 1993–2002.

Sources: UNEP (1), UNEP (1), UNEP (2), UNEP (3), UNCTAD (4), IEA (5), IRENA (5), UNCTAD (6), IPCC (7, 8), WMO (9)